Sunkist Bulletin

Food Lesson Number 1
(1933 Series)

ADEQUATE MINIMUM COST DIETS

THE ADEQUATE DIET. A need for economy in food budgets has turned the attention of food students to the minimum cost diet. To be truly economical this diet must be adequate for all body needs. It must nourish and build the body, protect it from disease, and provide energy for its activities.

This lesson presents a series of food lists for various ages designed to cover minimum daily food requirements in low cost diets.* These foods provide the essentials of an adequate diet, including:

Building and Protective Food Elements:

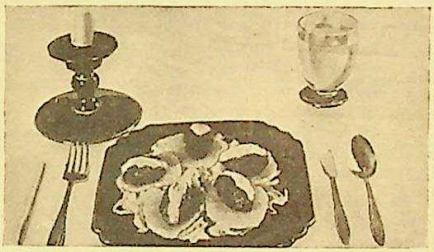
- Protein
- Minerals (particularly calcium, phosphorus and iron)
- Vitamins A, B, C, D, E, G

Energy or Fuel Foods:

- Carbohydrates
- Fats

Regulating Foods:

- Bulk Requirements
- Minerals and Alkaline Salts
- Fluids



Dishes may be economical, yet decorative and appetizing, like this Orange Prune Salad

RESULTS OF INADEQUATE DIETS. Diet deficiencies may result in serious impairment of health, especially to the growing bodies of children. If foods must be curtailed, it should be in the diet of the adult.

Lack of **protein** results in poor muscular growth and development in children, loss of strength, edema. Lack of **minerals** results in poor bone and tooth development—rickets and tooth decay, disturbances of all body processes, poor blood development.

Lack of **vitamins** results in retarded growth and development, lack of resistance to infection, particularly of respiratory and digestive tracts, poor appetite and digestive disturbances, poor tooth nutrition, general lowered vitality, development of deficiency diseases, such as pellagra, rickets or scurvy in severe or milder forms.

Lack of **carbohydrates** and lack of **fats** result in loss of heat and energy, waste of body tissue, loss of weight. Lack of fats, in addition, results in loss of protection for the vital organs and loss of certain vitamins found most abundantly in fats.

Lack of the **regulating foods** results in poor elimination with attendant ills and disturbance of all body processes.

* (See Minimum Daily Food Requirements for various ages as given on page 2.)

YOUNG CHILD—MINIMUM DAILY FOOD REQUIREMENTS

CHILD 1-4.

Milk—3 cups (fresh *or* evaporated: as beverages; in custards, junket, soups, creamed foods with cereals)

Eggs—4 *or* 5 a week (coddled *or* soft boiled for breakfast *or* dinner)

Meat or substitute—1 small serving (scraped beef, boiled meat ball, lamb chop, 1 ounce for dinner; cottage cheese, 1 tablespoon; bacon, 1 slice for breakfast)

Cereal products—2 servings (oatmeal *or* wheat cereal for breakfast and supper; desserts such as cornstarch puddings, tapioca for dinner)

Bread—3 slices (as dry toast with meals)

Potato—1 small serving (baked for dinner)

Other vegetables—2 servings of different *or* of same vegetable (cooked fresh *or* canned spinach, carrot, squash, peas, asparagus, celery. Sieve for very young children. Also vegetable milk soups)

Orange—1 (unstrained juice, *or* pulp for older child for breakfast *or* mid-meal lunch with undernourished children)

Other fruit—1 serving (stewed prunes; baked apple; well-ripened fresh fruit)

Butter—1½ tablespoons (on toast and vegetables)

Sweets—2 teaspoons (sugar on cereal; jelly, syrup, molasses, honey on toast)

CHILD 5-8. Increase size of cereal and fruit servings; sweets to 4 teaspoons; meat to 2 ounces. Add 1 serving raw vegetable (chopped celery, carrots, lettuce)

OLDER CHILD—MINIMUM DAILY FOOD REQUIREMENTS

CHILD 9-12.

Milk—3 cups (fresh *or* evaporated: as beverage for meals; mid-meal beverage in cases of malnutrition; in cooked dishes)

Eggs—1 (coddled, soft boiled, scrambled for breakfast *or* luncheon)

Meat or substitute—1 medium serving (ground beef ball, creamed dried beef, fish, any not-too-fat meat, 2½ ounces for dinner; also cheese, and beans for older child)

Cereal products—2 servings (oatmeal, wheat *or* other cereal for breakfast; corn *or* graham muffins; macaroni; hominy; rice; cornstarch pudding; tapioca)

Bread—4 slices (some whole grain with meals; mid-meal sandwich)

Potato—1 large serving (any style, not fried)

Other vegetables—3 to 4 servings (1 raw: lettuce, celery, cabbage, tomato; 1 root: carrots, beets, turnips; 1 leafy: spinach *or* other greens. If fewer vegetables are used, serve double helpings)

Orange—1 (any form for breakfast *or* mid-meal lunch)

Other fruit—2 servings (stewed dried fruits: prunes, apricots; fresh fruits in salads *or* desserts)

Butter—3 tablespoons (on bread and in cooking)

Sweets—4 teaspoons (sugar on cereal; jelly; syrup; honey; molasses)

CHILD 13-18. Increase meat to 3⅓ ounces; bread to 6 slices; potatoes to 2 servings; size of cereal servings. For growing boys or malnourished children include high calorie foods: raisins, figs, peanut butter, syrup.

ADULT—MINIMUM DAILY FOOD REQUIREMENTS

Milk—1 cup (fresh *or* evaporated: in beverage and cooked dishes)

Eggs—1 (any style for breakfast *or* luncheon)

Meat or substitute—1 large serving (any meat, 3⅓ ounces for dinner; *or* cheese, beans, peas, lentils, served once or twice a week as meat substitute)

Cereal products—2 servings (breakfast cereal; hot breads; macaroni; hominy; rice; cornstarch puddings; tapioca)

Bread—6 slices (with meals)

Potato—2 medium servings (any style)

Other vegetables—3 to 4 servings (1 raw: lettuce, celery, cabbage, tomato; 1 root vegetable: carrots, beets, turnips; 1 leafy vegetable: spinach *or* other greens. If fewer vegetables are used, serve double helpings)

Orange—1 (any style for breakfast; in salads *or* desserts)

Other fruit—1 serving (any fruit)

Butter and other fat—1 tablespoon butter; 2 tablespoons other fats: vegetable oils, salt pork (on bread and vegetables)

Sweets—4 teaspoons (sugar; jelly; syrup; honey; molasses)

Coffee or tea—not essential.

Note: A man at heavy labor may require a higher energy diet, supplied by extra bread, cereals, beans or meat. An expectant or nursing mother should have more milk (2 to 3 cups daily) and liver once or twice a week.

These food lists and the recipes may be cut out and pasted on cards for filing in a recipe card cabinet, after lesson has been studied. Recipes have been tested by a distinguished home economics teacher.

To Estimate Weekly Family Market Order: Add food amounts for each individual member of family as given under age columns. Put totals in "BUY" column. Foods purchased should provide for diet requirements of each member of family as given elsewhere on age lists.

FOODS	1-4 Yrs.	5-8 Yrs.	9-12 Yrs.	13-18 Yrs.	Adult	BUY
Milk	5¼	5¼	5¼	5¼	1¾	_____Quarts
Eggs	5	5	7	7	7	_____Eggs
Butter	⅓	⅓	⅔	⅔	¼	_____Pounds
Other fat					½	_____Pounds
Meat	½	1	1¼	1½	1½	_____Pounds
Cheese, beans, etc.				½	½	_____Pounds
Sugar or sweets	3	5	5	5	5	_____Ounces
Bread	1	1	1½	2	2	_____Loaves
Cereal products	½	¾	¾	1	1	_____Pounds
Flour					1¼	_____Pounds
Potatoes	2	2	4	5	5	_____Pounds
Other vegetables	4	4½	6½	6½	7½	_____Pounds
Dried fruits	½	1	1	2	2	_____Pounds
Oranges	7	7	7	7	7	_____Fruits
Other fresh fruit	1	1	1½	1½	1½	_____Pounds
Incidentals (salt, spice, baking powder, coffee, tea, etc.)						_____

LOW COST SALADS THAT PROVIDE VITAMIN C *(Serve 1)*

Arrange on lettuce-covered salad plates. Serve with any desired dressing.

Orange Prune: Arrange prunes stuffed with cottage cheese or with peanut butter moistened with orange juice on orange slices. (See illustration on first page.)

Orange Rose: Orange half slices circling mound of cottage cheese, or cottage cheese mixed with chopped raisins.

Orange Banana: Orange half slices or segments alternated with banana fingers rolled in orange juice and chopped peanuts or ground graham cracker crumbs.

Orange Apple: Halved orange slices alternated with wedge-shaped pieces of red apple (retain skin).

PEANUT CREAM SALAD DRESSING *(Serves 6)*

Beat together 2 tablespoons lemon juice, 2 tablespoons evaporated milk, ½ tablespoon sugar, 2 tablespoons peanut butter, ½ teaspoon salt. This is an excellent dressing for any of the salads above or for lettuce.

ECONOMY FRUIT DESSERTS *(Serves 6)*

Orange Winter Dessert: Combine 6 oranges cut in pieces with ¾ cup shredded dates or raisins.

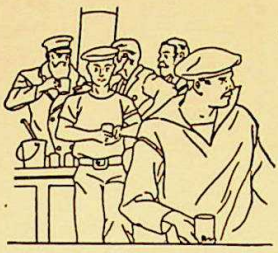
Oranges, Bananas and Marshmallows: Peel 3 oranges and 3 bananas and cut in pieces. Combine with 12 marshmallows, quartered.

Orange Toast: Toast 6 slices of bread on one side. Spread untoasted sides with a mixture of: ¼ cup orange juice, 1 teaspoon grated orange rind, 2 tablespoons melted butter, ½ cup sugar. Brown in oven or under broiler. This is good for a supper dessert, or for breakfast or tea. Bananas may be sliced over orange mixture before browning for a variation.

Lemon Sauce: Mix 1½ tablespoons cornstarch, ¾ cup sugar, 1½ teaspoons grated lemon rind. Add gradually 1½ cups boiling water, stirring constantly. Boil 5 minutes. Remove from fire. Add 3 tablespoons lemon juice, 3 tablespoons butter or margarine and a sprinkling each of nutmeg and salt. Serve hot on bread or other pudding. For variation, add ½ cup chopped dates or raisins.

Additional copies of these lists may easily be prepared by any multigraphing process to be distributed and used in actual relief work.

VITAMIN C FOODS OF SPECIAL IMPORTANCE. The food factors most often lacking in a minimum cost diet are those provided by milk, vegetables and fruits. Milk is given a foremost place in this diet because it furnishes protein of the best type, minerals and vitamins. Fruits and vegetables provide necessary minerals and vitamins.



British sailors were required to take lemon or lime juice daily to prevent scurvy

Food authorities point out that the average diet is more apt to be inadequate in vitamin C than in any other factor. The low cost diet is still more likely to be inadequate in this vitamin which prevents scurvy and promotes general good health. Even as recently as the World War, outbreaks of scurvy have accompanied food shortage, and such outbreaks may follow prevalent low cost diets unless these are carefully planned to include ample amounts of vitamin C foods.

In addition to the severe type of scurvy, inadequate vitamin C diets produce milder cases, which show in a general below-par physical condition and dental troubles. Children especially require adequate vitamin C.

Oranges and lemons are foremost sources of vitamin C. Recent research has shown these fruits to be a constant source of this vitamin, not varying for season or other factors. Vitamin C is not stored in the body and some food containing it should be eaten daily. These fruits are available in fresh form every day in the year. Cooking tends to lessen vitamin C but citrus fruits are served in many delicious uncooked forms.

Every minimum cost diet should supply at least one orange a day and provide supplemental vitamin C foods, such as: additional citrus fruits, tomatoes (tomato juice is half as potent a source of vitamin C as orange or lemon juice), raw cabbage, green peppers, lettuce, watercress, peas, potatoes, if served liberally.

In purchasing oranges and lemons for minimum cost diets, seek bargains in off sizes, such as small or large fruits. It is most economical to buy by the box, particularly for relief work distribution, and to choose a standard grade of known quality.

QUESTIONS FOR REVIEW

List the essential food factors provided by an adequate diet.

What may be the results of a diet inadequate in protein? minerals? vitamins, especially vitamin C? carbohydrates? fats? regulating foods?

SUGGESTIONS TO THE TEACHER

Under each head in the outline of food elements provided by an adequate diet on page 1 have students list actual foods suited to low cost diets. Have students check food lists on page 2 and enumerate the factors each food provides.

Plan a week's menu for a family of five (one child of four, one of nine, one of fourteen, and two adults), using food lists on page 2. Menu should include dishes that may be served to the children as well as the adults, simplifying or omitting dishes where necessary for the youngest child.

Compute market order for the week. Get prices on foods from local markets, seeking best buys. For food classes engaged in actual relief work, this project may be made very practical (see note on pages 2 and 3).

OFFER OF MATERIAL

For further information and recipes send for free copies of a child feeding booklet and Sunkist Recipe Booklet to:

Educational Department
California Fruit Growers Exchange
Box 530, Station C
Los Angeles, California

(Printed in U. S. A.)